



Unique charges

From the first years of its existence, initially under the scientific guidance of K.I. Shchelkin, and then from 1960 to 1984 - E.I. Zababakhin, the institute formed its own largely independent technical policy and created a number of products with record technical characteristics.

The most important work has become aimed at miniaturizing systems, ensuring their high efficiency, improved technical and operational characteristics. A critical attitude towards the development of missile defense systems was developed. The Institute reacted with restraint to the program for creating superbombs with enormous energy release, but even in this class of charges, the Institute's development was characterized by increased efficiency.

Much of the institute's work was carried out in competition with VNIIEF. In a number of areas - strategic complexes of the Navy, cruise missiles, aerial bombs, artillery - work was carried out mainly at VNIITF.

Most of the record-breaking nuclear charges (NC) in terms of various indicators were created at RFNC-VNIITF:

- the smallest nuclear weapon for a 152 mm artillery shell;
- the lightest warhead for the Strategic Nuclear Forces;
- the most durable and heat-resistant nuclear weapon, withstanding pressure up to 750 atm and heating up to 120 ° C, intended for peaceful purposes;
- the most shock-resistant nuclear weapon, withstanding overloads of more than 12000 g;
- the most economical nuclear plant in terms of consumption of fissile materials;
- the purest nuclear energy intended for peaceful applications, in which 99.85% of the energy is obtained through the synthesis of nuclei of light elements;

- the lowest-power charge is the irradiator.



РФЯЦ-ВНИИТФ
РОСАТОМ

Russian Federal Nuclear Center -
All-Russian Research Institute
of Technical Physics named after Academician E.I.
Zababakhina.

Enterprise of the State Corporation "Rosatom"

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